

REMARKS

This is intended as a full and complete response to the Office Action dated July 14, 2005, having a shortened statutory period for response set to expire on October 14, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-25 and 30-36 remain pending in the application and are shown above. Claims 1-25 and 30-36 are rejected. Reconsideration of the rejected claims is requested for reasons presented below.

Claims 2 and 5 are amended to correct matters of form. These amendments are not presented to distinguish a reference, thus, the claims as amended are entitled to a full range or equivalents if not previously amended to distinguish a reference.

New claims 37 and 38 have been added to claim additional aspects of the invention. Applicants believe claims 37 and 38 are supported by the specification and no new matter has been added.

Claims 1-25 and 30-36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Srinivasan et al.* in view of *Spikes, Jr.* The Examiner states that *Srinivasan et al.* teaches all limitations of the claims except for pre-polishing the substrate to planarize the substrate by removing a bulk overfill of the first dielectric material, the polishing system comprising a carousel with at least one substrate head assembly, a controller, a first and second platen and removing the silicon nitride at a rate of between 0.01 to about 300 Å/min, removing the silicon oxide at a rate of between about 50 and 5000 Å/min, and the silicon oxide and the silicon nitride being removed at a removal rate of greater than 10:1 and from about 100:1 to about 2000:1. The Examiner states that *Spikes Jr.* teaches a carousel, 40, a controller, 28, first and second platens, and pre-polishing the substrate. The Examiner, therefore, asserts it would have been obvious to one having ordinary skill in the art at the time the invention was made "to provide the polishing method of *Srinivasan et al.* with a pre-polish step, a carousel, first and

second platens and a controller, in order to remove the bulk overfill of dielectric material and more efficiently polish the substrates.”

Applicant respectfully traverses the rejection on grounds that the Examiner has not established a case of *prima facie* obviousness. The mere recitation of a combination of references does not amount to particularly identifying a suggestion, or a teaching or motivation to combine the references. (See, M.P.E.P. § 2143.) The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, not in the Applicant’s disclosure. See M.P.E.P. § 2143, citing *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). Still further, the examiner must particularly identify any suggestion, teaching or motivation from within the references to combine the references. See *In Re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1999).

Srinivasan et al. teaches a method of removing silicon dioxide in preference to silicon nitride from a surface of an article by chemical mechanical polishing said surface using a polishing pad, water, abrasive particles, and an organic compound having both a carboxylic acid functional group and a second functional group selected from amines and halides. Col. 4: 58-65. *Srinivasan et al.* is silent regarding pre-polishing the substrate to planarize the substrate by removing a bulk overfill of a first dielectric material.

Spikes Jr. teaches a first polishing process using a first polishing pad and a slurry. Col. 8: 11-13. *Spikes Jr.* also teaches planarizing the process layer using a substantially slurryless polishing process using a second polishing process that is more abrasive than the first. Col. 8: 44-49. *Spikes Jr.* further teaches that if the second post polish surface of the first process layer is not sufficiently planar, a third polishing process may be used and whether a slurry is used in this third step is a matter of design choice. Col. 10: 36-42. *Spikes Jr.* does not teach, suggest or motivate the use of a selective slurry in the third polishing process. Since the goal of the third step is to further planarize the first process layer, there is no reason to use a selective slurry.

As a result, the Examiner’s conclusion that it would have been obvious to one having ordinary skill in the art at “the time the invention was made to provide

the polishing method of *Srinivasan et al.* with a pre-polish step, a carousel, first and second platens and a controller, in order to remove the bulk overfill of dielectric material and more efficiently polish the substrates” is unsupported. This reason to combine the references identified by the Examiner is merely an unsupported conclusion that the combined elements provide an obvious result. Unsupported legal conclusions and impermissible hindsight may not provide a proper basis to support a rejection based on *prima facie* obviousness. If such a conclusion is true, it is gleaned from the Applicants’ own specification. The Examiner must rely on what has been taught or suggested by the prior art to preclude patentability and may not rely on the Applicants’ own specification. Accordingly, the Applicants submit that the Examiner has re-created the Applicants’ own invention using impermissible hindsight.

Moreover, even though references can be combined or modified, the possibility of a combination is not sufficient to establish *prima facie* obviousness. See M.P.E.P. § 2143.01. Furthermore, “[i]n determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious.” See M.P.E.P. § 2141.02 citing *Stratoflex, Inc. v. Aeroquip Corp.*, 218 USPQ 871 (Fed. Cir. 1983). Here, the Examiner has attempted to arrive at the claimed invention by combining the planarizing steps of *Spikes, Jr.* with the slurry of *Srinivasan et al.* that removes silicon dioxide in preference to silicon nitride. As such, the Examiner is picking and choosing random elements of each reference to arrive at the claimed invention.

Accordingly, the Examiner has not established a case of *prima facie* obviousness and withdrawal of the rejection is respectfully requested. In particular, the Examiner has failed to set forth that the references can be combined to motivate or suggest pre-polishing the substrate to planarize the substrate by removing a bulk overfill of a first dielectric material and then using a polishing composition having at least one organic compound to remove the first

dielectric material at a higher removal rate than a second dielectric material as recited in base claims 1, 17, 30, and 33, and those dependent therefrom.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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